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**Over 187 Billion Served:
Food Safety in the National School Lunch Program**

Carlye Murphy

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This paper is submitted in satisfaction of the Food and Drug Law course requirement.

ABSTRACT

This paper explores the problem of food safety in the National School Lunch Program. After a brief history of the program and an account of its current operations and structure, particularly its mechanisms for ensuring food safety, I probe the nature and scope of the problem, various organizational and regulatory failings, and specific proposals for improvement. The issue of school food safety has been used as a vehicle for a larger critique of the federal food safety regulatory system; one of the principal suggestions for improving the national school lunch program involves the creation of a single federal food safety agency, where there are now at least 12 agencies with some jurisdiction. While the single agency proposal has not gotten much traction, a controversial safety proposal—serving irradiated food in the school lunch program—did become enacted in 2003. The final part of this paper examines the irradiation policy, and, in my view, its subsequent failure, as the National School Lunch program went through reauthorization in 2004 and prepares for the next decade.

Introduction

“Janitors or other individuals whose chief concern was profits. . . reaped large sums by catering to the appetites of children. The food sold was rarely wholesome and often actually unclean.”

— *Emma Smedley*, organizer of one of the early American school lunch programs in Philadelphia, 1909.¹

“We must ensure that the food we are providing our Nation’s schoolchildren is not only wholesome and nutritious, but also safe to consume.”

— *Senator Richard Durbin*, opening statement at the joint hearing entitled, “Kids and Cafeterias: How Safe are Federal School Lunches,” April 30, 2002.²

A lot has changed regarding school lunches in the nearly 100 years separating Emma Smedley and Senator Richard Durbin. In Smedley’s time, there were only fledgling school feeding programs specific to different localities. Today, the National School Lunch Program,³ a federally-assisted meal program that began in 1946 with the passage of the National School Lunch Act, operates in more than 99,800 schools and provides low-cost or free lunches to more than 29.8 million children each day,⁴ at an annual cost of \$7.1 billion.⁵ Since the start of the modern program, more than 187 billion school lunches have been served.⁶ Despite the

¹Susan Lynn Roberts, *School Food: Does the Future Call for New Food Policy or Can the Old Still Hold True?*, 7 Drake J. Agric. L. 587, 589 (2002) (citing Emma Smedley, *The School Lunch* 5 (Innes & Sons 1920)).

²*Kids and Cafeterias: How Safe Are Federal School Lunches?: Joint Hearing Before the Oversight of Government Management, Restructuring, and the District of Columbia Subcommittee of the Senate Committee on Governmental Affairs and the Subcommittee on Government Efficiency, Financial Management, and Intergovernmental Relations of the House Committee on Government Reform*, 107th Cong. 3 (April 30, 2002), [hereinafter *Joint Hearing*] (testimony of Sen. Richard Durbin).

³This paper addresses issues involving the National School Lunch Program, and, to some extent, the School Breakfast Program, referred to in this paper collectively as the “school meal programs.” These are the two largest child nutrition programs in the United States; however, legislation has also provided for three other programs: the Special Milk Program, the Summer Food Service Program, and the Child and Adult Care Food Program.

⁴Food and Nutrition Service, *National School Lunch Current Participation*, Dec. 27, 2004, accessed at <http://www.fns.usda.gov/pd/slcurrent.htm>.

⁵USDA, *Nutrition Program Facts: National School Lunch Program*, Dec. 2004, accessed at <http://www.fns.gov/cnd/Lunch/AboutLunch/NSLPFactSheet.pdf>.

⁶*Id.*

developments between 1909 and the present—establishment and expansion of a major federal program and the consumption of billions of meals—both Emma Smedley and Richard Durbin expressed common concerns about the food served to schoolchildren in the United States through school food programs. In addition to *nutrition*, or wholesomeness, both also emphasized the importance of *safety*, or cleanliness. Fundamentally, it does not matter how healthy a meal is, if it makes a child sick.

With child obesity presently looming as a major public health issue ⁷—data indicates that more than 15 percent of American children are overweight—it is not surprising that attention is focused on child nutrition, particularly in the context of the school food programs. National studies suggest that while school lunch program meals meet requirements for nutrients such as protein, vitamins, calcium, and iron, they fail the 30 percent limit guideline for calories from fat.⁸ Commentators have also criticized the rise of “competitive foods,” foods available to children from vending machines or snack bars during school lunch periods, as undermining the nutritional integrity of the school lunch program.⁹ Accordingly, the General Accounting Office (“GAO”) was commissioned by Congress to report in May 2003 on the extent to which national school lunches were meeting nutrition standards and schools were encouraging healthy eating.¹⁰ Issues of nutrition were central to the Child Nutrition and WIC Reauthorization Act of 2004, which, among other things, creates new ways to improve the nutrition environment in schools by establishing local Wellness Councils and expanding the fresh fruit and vegetable pilots.

⁷Child obesity has been compared to smoking in terms of seriousness to public health. *See, Outflanking the Enemy*, The Economist, December 13, 2003.

⁸U.S. General Accounting Office, *School Lunch Program: Efforts Needed to Improve Nutrition and Encourage Healthy Eating*, GAO-03-506 (Washington, D.C.: May 9, 2003), 1.

⁹Drake, *supra* note 1, at 605.

¹⁰U.S. General Accounting Office, *supra* note 8.

In regards to food safety, it is also not surprising that many current discussions turn on the issue of food security, as the events of 9/11 have made bioterrorism an increasing threat. Beginning immediately after the terrorist attacks of 2001, the security of the nation's food supply became a priority, as evidenced in hearings and a GAO report.¹¹ However, the security concern has also pervaded discussions not directly on the topic, including discussions of school food safety, as Senator Durbin observed, "We face new security threats in our world today. We are not only concerned about pathogens like *Salmonella* and *E. Coli*, but also the threat of deliberate contamination of the food supply."¹²

Despite the present focus on child nutrition and food security, the issue of food safety in the National School Lunch Program has risen to prominence in recent years. A number of large food poisoning outbreaks associated with the school lunch program in the late 1990s brought the issue into the limelight. Investigations, including two GAO reports on the problem, culminated in a joint hearing before the Senate Committee on Governmental Affairs and the House of Representatives Committee on Government Reform in April 2002 entitled, "Kids and Cafeterias: How Safe Are Federal School Lunches?"

This paper explores the problem of food safety in the National School Lunch Program. After a brief history of the program and an account of its current operations and structure, particularly its mechanisms for ensuring food safety, I probe the nature and scope of the problem, various organizational and regulatory failings,

¹¹See, *Food Safety and Security: Can Our Fractured Food Safety System Rise to the Challenge?: Hearing Before the Oversight of Government Management, Restructuring, and the District of Columbia Subcommittee of the Senate Committee on Governmental Affairs*, 107th Cong. (Oct. 10, 2001). See also, U.S. General Accounting Office, *Food Safety and Security: Fundamental Changes Needed to Ensure Safe Food*, GAO-02-47T (Washington, D.C.: Oct. 10, 2001).

¹²*Joint Hearing, supra* note 2, at 4 (testimony of Sen. Richard Durbin). See also, U.S. General Accounting Office, *Food Safety: Continued Vigilance Needed to Ensure Safety of School Meals*, GAO-02-669T (Washington, D.C.: April 30, 2002) [hereinafter *GAO 2002 Report*] (one section of the report is devoted to the lack of special deliberate contamination security provisions for the school meal programs).

and specific proposals for improvement. The issue of school food safety has been used as a vehicle for a larger critique of the federal food safety regulatory system; one of the principal suggestions for improving the national school lunch program involves the creation of a single federal food safety agency, where there are now at least 12 agencies with some jurisdiction. While the single agency proposal has not gotten much traction, a controversial safety proposal—serving irradiated food in the school lunch program—did become enacted in 2003. The final part of this paper examines the irradiation policy, and, in my view, its subsequent failure, as the National School Lunch program went through reauthorization in 2004 and prepares for the next decade.

I. Historical Background of the School Lunch Program

While the concept of feeding children lunch at school has existed since the 1700s in Europe, it was only in the early 1900s in the United States that pilot school lunch programs were founded.¹³ At this time, young people in the United States faced rampant malnutrition—one-third of the military enlistees in World War I were rejected due to diseases from malnutrition—and social scientists began chronicling child hunger, linking poor nutrition with dismal school performance.¹⁴ In response, the New York Superintendent of Schools started two school lunch programs that provided lunches for three cents; other programs were founded in the urban centers of Boston, Philadelphia, Chicago, Cincinnati, and St. Louis as well. Despite the severe public health problem, no state or federal food or nutrition programs were under consideration—the undertakings were all due to the efforts of philanthropic organizations, school-oriented associations, school district boards, and individuals.

¹³For a detailed history of school food programs in the United States, *see*, Gordon W. Gunderson, *The National School Lunch Program*, accessed at <http://www.fns.usda.gov/cnd/Lunch/AboutLunch/ProgramHistory.htm#Gordon>.

¹⁴Drake, *supra* note 1, at 591.

Ironically, the catalyst for the first government school feeding program was not a crisis of malnutrition, but the problem of agricultural surpluses during the Great Depression of the 1930s, where, in the midst of unemployment and hunger, farmers had no markets for their goods. The Secretary of Agriculture intervened, and by purchasing surplus domestic foods which were then distributed to schoolchildren with state administrative assistance, the government was able to address the dual problems of hunger and price-depressing surpluses on the market. Additionally, the early school lunch programs employed many unemployed women under the Work Projects Administration (“WPA”); by 1942, the WPA was operating school lunches in every state, the District of Columbia, and Puerto Rico, with six million children fed daily.¹⁵

However, by 1944, the number of children served had dropped by a sixth to only five million; this was attributed to the loss of food service workers and commodity foods to World War II, where workers migrated to defense industries and food was channeled instead to the military.¹⁶ The major government policies behind the early school lunch program were quite clearly giving workers jobs and supporting agriculture, not feeding hungry children. Yet, after the war, a renewed interest in the school lunch program emerged, and a new rationale for it was articulated in terms of protecting the country’s national security. General Hershey, director of the Selective Service, told Congress that the country had sustained 155,000 casualties because of malnutrition in its young men; the problem of unhealthy schoolchildren needed to be addressed.¹⁷ Shortly thereafter, in 1946, the National School Lunch Act was signed into law by the 79th Congress. Section 2 of the Act defined its purpose: “It is hereby declared to be the policy of Congress, as a measure of national security, to safeguard the health and well-being of the Nation’s children and to encourage the domestic consumption of nutritious agricultural commodities and other food.”¹⁸ This same general policy continues to guide school

¹⁵*Id.* at 592-593.

¹⁶*Id.* at 593.

¹⁷*Id.*

¹⁸*National School Lunch Act of 1946*, Pub. L. No. 79-396, 60 Stat. 230.

food policy today.

Where the policy of the original 1946 Act did not address protecting the welfare of the neediest children, the Child Nutrition Act of 1966 twenty years later complemented the National School Lunch Act by instituting new programs specifically aimed at schools in economically poor areas. For instance, a pilot breakfast program was authorized for poor schools where children traveled long distances or where dietary practices needed improvement. Another program provided non-food assistance for start-up and expansion costs. Nevertheless, the school food programs were critiqued for not combating the specific needs of the poor. “Hunger, U.S.A.,” a Citizens Board of Inquiry report published in 1968, alleged, “At most, one-third of poverty stricken children attending public school participate in the school lunch program. Despite express provision in the national school lunch act that they shall ‘be served without cost or at a reduced cost,’ a majority of poor children are forced to pay the full price for school lunch or go without.”¹⁹ A 1968 television documentary, *Hunger in America*, brought a shocking picture of starvation to the public at large; the publicity also signals the start of a continued fascination by the media with child nutrition and also school food safety, particularly incidents of food poisoning.

President Richard Nixon responded by establishing the Food and Nutrition Service (“FNS”) as part of the United States Department of Agriculture (“USDA”) to operate federal food programs, including the school feeding programs. Congress increased appropriations to reach more needy children, and federal, as opposed to state, standards determined which children would receive free and reduced-price lunches. At this time, food and nutrition policy recognized the importance of nutrition education in addition to food provision. Maintaining agricultural support was still important, but it was taking a back seat to children.²⁰

¹⁹Drake, *supra* note 1, at 595-596.

²⁰See, Sheila A. Taenzler, *The National School Lunch Program*, 119 U. Pa. L. R. 372 (1970).

The school lunch program faced obstacles in the 1980s when its budget was decreased for the first time. The infamous designation of catsup as a vegetable by the Reagan administration was part of a larger set of program cost reductions. However, the 1990s brought increased funding to the major USDA program, as the number of free and reduced price lunches served to children increased from 48 percent of the total lunches served in 1990 to 57 percent in 2000; the number of breakfasts served went from 707 million in 1990 to over 1.3 billion in 2000.²¹ In the mid-1990s, attention was also turned to the nutritional aspects of the school food programs. A 1992 study showed that school lunches and breakfasts met the vitamin and mineral requirements, but far exceeded the dietary guidelines recommendations for fat, saturated fat, and sodium.²² In response, Congress passed the Healthy Meals for Americans Act of 1994 that required school food programs provide meals consistent with the Dietary Guidelines for Americans by July 1, 1996 in order to receive reimbursement.

Congress began the process of reauthorizing the federal child nutrition programs, including the school lunch and breakfast programs, in early 2003; preparation included two major GAO reports describing nutrition in school meals and school food safety. The process concluded in June 30, 2004 when President Bush signed the Child Nutrition and WIC Reauthorization Act of 2004 into law.

II. The Structure of the National School Lunch Program

²¹Drake, *supra* note 1, at 598.

²²*Id.* at 599.

The National School Lunch Program has grown to be an extremely important program, serving more than 29.8 million children per day, at a cost of more than \$7.1 billion per year.²³ Public and nonprofit private schools of high school grade or under, and public and nonprofit private residential child care institutions are eligible to participate in the school lunch program; an overwhelming majority of such institutions—87.8 percent—have chosen to take part.²⁴

A.

Funding Structure

The Child Nutrition Division of the FNS administers the National School Lunch and School Breakfast programs at the federal level, while state education agencies operate the programs through agreements with school food authorities at the local level. Participating schools receive both donated commodities and cash subsidies from USDA for each meal they serve. Overall, USDA donates about 17 percent of the dollar value of the food that is served in the programs. This food donation is in keeping with the policy goal of supporting the agricultural economy, as USDA is able to remove surpluses from the market in addition to providing nutritious foods to schoolchildren. Schools are entitled to receive commodity foods, called “entitlement” foods, at a value of 17.25 cents for each meal served, as well as “bonus” commodities as they are available from surplus agricultural stocks.²⁵ The remaining 83 percent of the dollar value of food served is purchased by schools using USDA’s cash reimbursement and their own funds. Most of the support USDA provides to

²³The total cost includes cash reimbursements to schools, USDA-donated foods, and program administration. U.S. General Accounting Office, *Food Safety: Continued Vigilance Needed to Ensure Safety of School Meals*, GAO-02-669T (Washington, D.C.: April 30, 2002), 3 [hereinafter *GAO 2000 Report*].

²⁴*See, Fact Sheet Food Service*, from CDC’s School Health Policies and Programs Study (SHPPS) 2000, accessed at <http://www.cdc.gov/HealthyYouth/shpps/factsheets/pdf/food.service.pdf>.

²⁵A very successful project between USDA and the Department of Defense (DoD) has helped provide schools with fresh produce purchased through DoD. USDA has also worked with schools to help promote connections with local small farmers who may be able to provide fresh produce. *Nutrition Program Facts*, *supra* note 5.

schools in the National School Lunch Program, therefore, comes in the form of cash reimbursements.²⁶

Two USDA agencies are responsible for procuring USDA-donated foods through contracts with manufacturers after a formally advertised competitive bidding process: the Agricultural Marketing Service (“AMS”) oversees meat, poultry, fish, fruit and vegetable purchases, and the Farm Service Agency (“FSA”) purchases grains, oils, peanut products, dairy products, and other foods. The foods are then donated to state agencies through FNS’s Food Distribution Division, and subsequently, distributed to individual schools. The remaining 83 percent of food is procured independently by schools using their own procurement practices, either purchasing foods directly from manufacturers or distributors, or contracting with food service management companies.

To participate in the National School Lunch Program, schools must serve lunches that meet federal nutrition requirements, though decisions about what specific foods to serve and how they are prepared are made by local school food authorities.²⁷ The dietary guidelines recommend that no more than 30 percent of an individual’s calories come from fat, and less than 10 percent from saturated fat. Regulations also establish that school lunches must provide one-third of the Recommended Dietary Allowances of protein, Vitamin A, Vitamin C, iron, calcium, and calories.

Any child at a participating school may purchase a meal, but schools are required to offer free or reduced-price lunches to eligible children. Children from families with incomes at or below 130 percent of the poverty level are eligible for free meals; those with incomes between 130 percent and 185 percent of the poverty level are eligible for reduced-price meals, for which students can be charged no more than 40 cents; and those

²⁶The current (July 1, 2004 through June 30, 2005) basic cash reimbursement rates are: \$2.24 for free lunches; \$1.84 for reduced-price lunches; \$0.21 for paid lunches. *Id.*

²⁷*Id.*

with incomes over 185 percent of the poverty level pay full-price, though their meals are still subsidized to some extent.²⁸ Local school food authorities set their own prices for full-price meals, but must operate their meal services as non-profit programs.

B. Safety Regulatory Structure

No federal agency specifically monitors the safety of school meals. However, generally, USDA's Food Safety and Inspection Service ("FSIS") and the U.S. Department of Health and Human Services' Food and Drug Administration ("FDA") are responsible for enforcing regulations that ensure the safety of the nation's food supply, and therefore, by extension, the safety of the school lunch program's food supply. FSIS has jurisdiction over meat, poultry, and some eggs and egg products, while the FDA is responsible for all other foods, including fish, fruit, vegetable, milk, and grain products; FDA's jurisdiction covers approximately 80 percent of domestic and imported foods marketed in interstate commerce. The resources between the two agencies differ substantially—USDA has 7,600 employees inspecting 6,500 facilities (more than one inspector per facility), while FDA has 770 inspectors for 60,000 facilities (one inspector per 80 facilities); additionally, USDA makes daily inspections, while FDA inspections are frequently annual.²⁹ Neither agency has the authority to recall unsafe foods that have been detected, but can request manufacturers to do so voluntarily. FSIS has the authority to temporarily detain potentially contaminated food for up to 20 days while it seeks a court order for seizure, and FDA may seize adulterated products, though it generally must obtain a court order.³⁰

²⁸For the period July 1, 2004 through June 30, 2005, 130 percent of the poverty level is \$24,505 for a family of four; 185 percent is \$34,873. *Id.*

²⁹*Joint Hearing, supra* note 2, at 32 (testimony of Sen. Richard Durbin).

³⁰*GAO 2000 Report, supra* note 23, at 6.

USDA has established procurement policies promoting food safety that are contained in the procurement contracts it uses to purchase foods for schools. Some of the contract provisions reflect the basic food safety regulations protecting the general public found in the Federal Meat Inspection Act, the Poultry Products Inspection Act, and the Food, Drug, and Cosmetic Act. For instance, meat and poultry plants must operate Hazard Analysis and Critical Control Point (“HACCP”) systems and are subject to daily inspection by FSIS.³¹

Some of the contract provisions for school foods, however, are more stringent than ordinary standards. Contracts for diced chicken, for example, specify pathogen testing for every lot because of its high susceptibility to contamination; eggs and peanut products also receive additional testing.³² In 2000, USDA instituted a zero tolerance standard for *Salmonella* and *E. coli* O157:H7 in ground beef specifically used in the school lunch program, resulting in the rejection of millions of pounds of ground beef.³³ When USDA proposed to soften the standard in 2001, and sample for other “indicator organisms” to identify contaminated products, negative reaction caused the Secretary of Agriculture to maintain the more stringent standard. Special provisions regarding appropriate temperatures for processing, storage, and transportation are also contained in USDA procurement contracts.

However protective these procurement provisions are, it is important to note that they do *not* apply to the 83 percent of food that the schools themselves buy; the safety of this food depends on state and local laws and

³¹In one instance in November 1999, USDA cancelled its school food contracts with a beef processor after a Food Safety and Inspection Service enforcement action was brought for not complying with HACCP standards. *Id.* at 9.

³²*Id.* at 10.

³³In contrast, FSIS regulations for raw ground beef for the general public require a series of random sample testing, with a standard of no more than 7.5 percent of each sample being positive for *Salmonella*.

guidance. A 2000 GAO report critiqued FNS's guidance to schools on procurement safety as "not specific or complete," and recommended that USDA make their contract specifications regarding the safety of food products available.³⁴ USDA responded to the report by stating that its "focus with schools on safe food preparation, rather than on food procurement, is appropriate" since foods purchased by schools are already protected by food safety regulations for the general public, and most cases of foodborne illness at schools are due to poor food storage, handling, and serving practices.³⁵

In terms of safety procedures at the food preparation level, FNS distributes educational materials for food service professionals and provides training and technical assistance to state agencies and local school authorities administering the National School Lunch Program.³⁶ The American School Food Service Association ("ASFSA"), a member organization of more than 57,000 food service professionals, reports that more than half its members have been certified in a comprehensive food safety program.³⁷ FDA publishes a model Food Code, which outlines steps for establishing a uniform system of regulation to ensure that food offered in retail outlets, including schools and nursing homes, is safe for human consumption; many jurisdictions have adopted the Code as their regulatory standard, and the FDA is promoting widespread implementation of it.³⁸ FDA is also involved in several food safety activities specifically aimed at educating children.

The Centers for Disease Control and Prevention ("CDC"), within the Department of Health and Human Services, partners with state and local health departments to conduct surveillance for foodborne illness.

³⁴*Id.* at 12.

³⁵See, Comments From the U.S. Department of Agriculture, *Id.* at 15.

³⁶Beginning in 1998, FNS received \$2 million annually to promote food safety. *Joint Hearing, supra* note 2, at 20 (testimony of Hon. Elsa Murano, Under Secretary of Agriculture for Food Safety, USDA).

³⁷*Joint Hearing, supra* note 2, at 44 (testimony of Mary Klatko, food service administrator, on behalf of ASFSA).

³⁸*Id.* (testimony of Lester M. Crawford, Deputy Commissioner, FDA).

PulseNet and FoodNet are two enhanced Internet surveillance systems that facilitate data sharing and coordinated outbreak response. When an outbreak occurs at a school, the commodity holds and recalls procedures, introduced in 2001, are used to hold the suspected products at the school; then the FSIS, FDA, CDC, and local health authorities begin an investigation.

III. The Magnitude of the School Food Safety Problem

In his opening statement at the joint hearing entitled “Kids and Cafeterias: How Safe Are Federal School Lunches?” on April 30, 2002, Senator Richard Durbin stated, “Our country has been blessed with one of the safest and most abundant food supplies in the world. However... foodborne illnesses and hazards are still a significant problem that cannot be passively dismissed.”³⁹ Understanding the magnitude of the problem, both in scope and in importance, is crucial before undertaking any plans for improvement. Representative Rosa DeLauro cut to the heart of the problem when she testified, “it is imperative that we determine the scope of this problem. . . Let us get the numbers straight.”⁴⁰

A.

The Numbers

The incidence of foodborne illness generally in the United States and its associated costs is, undeniably, not insignificant. CDC estimates that unsafe foods cause approximately 76 million illnesses, 325,000 hospi-

³⁹*Id.* at 3 (testimony of Se. Richard Durbin).

⁴⁰*Id.* at 10 (testimony of Hon. Rosa DeLauro).

talizations, and 5,000 deaths each year, and cost the nation between \$7 billion and \$37 billion annually in terms of medical and lost productivity costs.⁴¹ Another way of looking at it is that every day about 200,000 Americans are sickened by foodborne illness, 900 are hospitalized and 14 die. The problem is even greater than the numbers indicate, as CDC acknowledges that foodborne illnesses are underreported.⁴²

CDC also specifically monitors school-related outbreaks, and its data shows an increase in the number of outbreaks between 1990 and 1999. In that time span, 292 school-related outbreaks affecting approximately 16,000 people, overwhelmingly children, were reported to CDC: averaging 17 outbreaks in each of the first 4 years, 28 in each of the next 4 years, and 57 in each of the final 2 years.⁴³ Some unknown portion of the increase in reported outbreaks might be attributed to CDC's transition from a passive surveillance data collection method to a more active one in 1998, as well as to increased resources for outbreak investigations and greater public awareness about foodborne disease. However, even after adjusting for CDC's improved data collection, the GAO reports that the number of school-related foodborne outbreaks increased, on average, about 10 percent per year between 1990 and 1999.⁴⁴

The types of illnesses associated with the school meal outbreaks is not well-documented. However, Norwalk-like viruses, which cause a mild gastrointestinal illness lasting 24 to 60 hours, were the most frequently reported, followed by *staphylococcus aureus*, which results in diarrhea and vomiting within one to 6 hours; however, more serious and sometimes fatal illnesses, while less common, are also a reality.⁴⁵

⁴¹GAO 2002 Report, *supra* note 12, at 4.

⁴²Underreporting occurs because mild cases are often undetected; pathogens may also be spread through water, obscuring the role of foodborne transmission; and some illness is caused by agents yet to be identified or diagnosed. Furthermore, CDC does not have statutory authority to require states to report foodborne outbreaks, so reporting is voluntary and some states are less proactive. GAO 2000 Report, *supra* note 23, at 7.

⁴³GAO 2002 Report, *supra* note 12, at 7.

⁴⁴*Id.* at 9.

⁴⁵U.S. General Accounting Office, *School Meal Programs: Few Instances of Foodborne Outbreaks Reported, but Opportunities Exist to Enhance Outbreak Data and Food Safety Practices*, GAO-03-530 (Washington, D.C.: May 2003), at 10 [hereinafter GAO 2003 Report].

One major drawback of CDC's data, however, is that it does not differentiate between illnesses caused by food served through the school lunch program and illnesses caused by food brought from home or other sources. Additional research by the GAO determined that 13 of the 20 largest school outbreaks in CDC's database for the years 1998 and 1999 were associated with foods associated with the school food program (65 percent),⁴⁶ and 40 of the 59 large school outbreaks between 1990 and 1999 were school food program-related (68 percent).⁴⁷ Of those 40 school outbreaks, only six were found to have been caused by foods that were contaminated prior to delivery to the school.⁴⁸

Individually and together, several of the large-scale school outbreaks in the late 1990s were catalysts for bringing the issue of school food safety to the national forefront. One of the biggest cases of foodborne illness included 400 children sickened by *staphylococcus aureus* in spaghetti in 1996. In 1997, over 300 schoolchildren in five states were sickened from frozen strawberries harvested in Mexico and processed in California; 242 children at 23 Michigan schools contracted Hepatitis A in that incident, and another 10,000 people had to be immunized with gamma globulin to protect against the disease.⁴⁹ In 1998, burritos produced in an uninspected Chicago tortilla factory were suspected of sickening 1,200 children nationwide.

B. Interpreting the Numbers

Compounding the fact that the outbreak data is somewhat uncertain is the reality that a single set of

⁴⁶ *Id.*

⁴⁷ *Id.* at 3.

⁴⁸ *Id.*

⁴⁹ *Joint Hearing, supra* note 2 (testimony of Caroline Smith DeWaal, Director of Food Safety, Center for Science in the Public Interest).

numbers is subject to vastly different interpretations, depending on the viewer's lens and priorities. A 2000 GAO report, "School Meal Programs: Few Outbreaks of Foodborne Illness Reported," by its very title, characterizes the problem as minimal through the use of the word "few."⁵⁰ Looking at the data contained inside, it is reported that "only" 8 of the 20 outbreaks of foodborne illness in schools reported to the CDC in 1997 were linked to foods served in the meal programs. Counsel to the National Food Processors Association ("NFPA") also saw the numbers positively, commenting that, given the fact that 33 million meals are served daily in the national school meal programs, the "low rate of foodborne disease. . . is a laudable achievement."⁵¹ The NFPA, whose members provide much of the food served in the national school lunch program, arguably has an incentive to minimize the problem, while the GAO, as the audit, evaluation and investigative arm of Congress, is expected to be impartial in promoting accountability, integrity, and reliability in the federal government.

Looking at the very same CDC data, Senator Durbin characterized the increase in foodborne illnesses affecting children in schools since 1990 "significant" and "simply unacceptable," adding that there is "evidence of serious safety problems with our national school lunch system."⁵² Interestingly, nearly two years after its initial report, the GAO issued another report on school food safety, to be submitted as testimony at the April 2002 joint hearing.⁵³ This report, entitled "Food Safety: Continued Vigilance Needed to Ensure Safety of School Meals," contained essentially the same CDC outbreak data as the original report, but cast it in a more disconcerting light than previously.

⁵⁰ *GAO 2000 Report*, *supra* note 23.

⁵¹ *Joint Hearing*, *supra* note 2, at 116 (testimony of John Bode, counsel to National Food Processors Administration).

⁵² *Id.* at 3 (testimony of Sen. Richard Durbin).

⁵³ *GAO 2002 Report*, *supra* note 12.

Testimony from the mother of a Michigan child that became seriously ill with Hepatitis A after consuming contaminated strawberries at school lunch suggested that “foodborne illness victims continue to be ignored as real victims” often because the source of their illness is never discovered.⁵⁴ She further added that the industry and government’s emphasis on consumer education regarding safe preparation of meals is misplaced, since she and her children did nothing wrong and could not have prevented the contamination themselves. Another mother elaborated that children who are victims of school food poisoning are “all too often treated like second-class citizens by health officials and other workers, whose main interest is covering up for misdeeds.”⁵⁵

Another force potentially minimizing the scope of the problem is that children who complain of food poisoning are often suspected of “faking it.”⁵⁶ Contrasted with this, however, is a force misstating the problem in the opposite direction—the possibility that group hysteria can trigger false reports of illness, also known as mass sociogenic illness.⁵⁷

C. Importance of the Issue

The safety of the food served in schools, as differentiated from the food available to the public at large, is a matter of particular concern because of children’s increased vulnerability to foodborne illness. According to the CDC, children between the ages of one and 9 have the highest infection rate for *E. coli* of all age

⁵⁴ *Joint Hearing*, *supra* note 2, at 36 (testimony of Sue Doneth, on behalf of S.T.O.P.).

⁵⁵ *Id.* at 42 (testimony of Cheryl Roberts, on behalf of S.T.O.P.).

⁵⁶ See, David Jackson, *Schools Flunk Food Safety*, Chicago Tribune, Dec. 10, 2001, at 1 (comment from school health official).

⁵⁷ See, e.g., *Mass Sociogenic Illness in a Day-Care Center—Florida*, 39 Morbidity & Mortality Weekly Rep. 301 (May 11, 1990) (as cited in Peter Barton Hutt & Richard Merrill, *Food and Drug Law* 262 (2d ed. 1991)).

groups.⁵⁸ Moreover, foodborne pathogens which might only mildly affect an adult could seriously damage or kill a child, whose immune system is not fully developed.⁵⁹ Children, as well as the elderly and pregnant women, are considered “at risk” populations; the Federal Food Safety Coalition, a group that includes federal agencies responsible for feeding programs, has made these populations the subject of increased attention.⁶⁰

Aside from their particular physical susceptibility, concern over children’s health is especially important because the United States places a special value on children—stated most forcefully, it has been said that “there is no higher priority than the safety and health of our children.”⁶¹ Put another way, “No amount of financial savings could justify the illness or death of a child.”⁶² Since children cannot advocate for themselves, parents play a central role in their protection and many food-safety messages are targeted to parents; however, when children are at school, parents must rely on the school system and government to safeguard what their children consume. Representative Janice Shakowsky declared in the joint hearing that “Parents deserve a federal guarantee that the food their children eat at school is safe.”⁶³ Schoolchildren who consume the program’s meals are accurately characterized a “captive population,”⁶⁴ many of them receiving lunch for free or at reduced prices because they cannot afford to bring their own.

Aside from the physical, social, and emotional reasons why school food safety is of critical importance is a purely financial reason. From a bottom-line viewpoint, it is essential to have the best program possible

⁵⁸ *GAO 2003 Report*, *supra* note 45, at 1.

⁵⁹ It takes only three to five E. Coli O157:H7 bacteria to kill a child. *Joint Hearing*, *supra* note 2, at 40 (testimony of Cheryl Roberts). *See also, id.* at 10 (testimony of Hon. Rosa L. DeLauro).

⁶⁰ *GAO 2000 Report*, *supra* note 12, at 20.

⁶¹ *Joint Hearing*, *supra* note 2, at 13 (testimony of Hon. Rosa L. DeLauro).

⁶² *Id.* (testimony of Caroline Smith DeWaal).

⁶³ *Id.* at 8 (testimony of Rep. Janice Shakowsky).

⁶⁴ *Id.* at 42 (testimony of Cheryl Roberts).

simply “because of the considerable financial investment by American taxpayers in the federal school meal programs.”⁶⁵

D. The Impact of Publicity on Characterizing the Issue

Incidents of food poisoning, particularly those affecting children, and even more so those induced by school lunches, receive extensive publicity and subsequently impact the public’s knowledge and perception of the problem. News outlets, both print and television, give extended, graphic coverage of food poisoning incidents, both big and small. Coverage of an outbreak last March at a St. Louis elementary school is just one example. The *St. Louis Post-Dispatch* ran the story, “45 Students at St. Louis School Become Sick After Eating Lunch,” on the front page with a color photograph depicting firefighters carrying sick children to buses headed for the hospital. The article reported that the school’s “meat-and-potatoes lunch” was the probable source and that the incident “comes after a separate incident on Friday, where a student at another city elementary school found a worm in a lunch.”⁶⁶ The next day, the newspaper followed up with two front-page articles in the Metro section, one on the source of the outbreak,⁶⁷ and another critiquing privatization of the city’s food service.⁶⁸ Embedded within the print journalism account was a description of the local network coverage: “In the treatment room, Tijohnna Marie Reeves, 10, had just finished multiple interviews with television reporters.”⁶⁹ Two days later, the newspaper continued its chronicle by reporting on the Department of Health’s investigation and steps being taken to prevent future incidents, such as installing a

⁶⁵ *GAO 2003 Report*, *supra* note 45 at 25.

⁶⁶ Jake Wagman and Jeremy Kohler, *45 Students at St. Louis School Become Sick After Eating Lunch*, *St. Louis Post-Dispatch*, March 17, 2004, at A1.

⁶⁷ Jake Wagman, *Official Says Source of Outbreak at School Might Never be Traced, Boxes of Food May Have Been Out of Freezer Too Long*, *St. Louis Post-Dispatch*, March 18, 2004, at B1.

⁶⁸ Sylvester Brown, *School Lunch Firm May Save Millions, But At What Cost?*, *St. Louis Post-Dispatch*, March 18, 2004, at B1.

⁶⁹ *Id.*

food crisis hotline.⁷⁰

The topic of food safety is also prone to sensationalizing. Eric Schlosser, the author of the popular 1991 book *Fast Food Nation: The Dark Side of the All-American Meal*, used graphic description in a *USA Today* column on food safety: “When the U.S. Department of Agriculture (USDA) tries to keep *salmonella* out of the ground beef used in school lunches, it is, essentially, attempting to keep cattle feces out of our children’s food.”⁷¹ The shock-value of this kind of reporting keeps the issue in the news and builds public indignation and concern.⁷²

Publicity of the food outbreaks and reporting on food safety issues not only influence public perceptions, but also have direct impact on governmental action. A series of articles published by the *Chicago Tribune*⁷³ in December 2001 highlighting dangerous deficiencies in the school lunch program was a trigger for the April 2002 joint hearing on food safety in school lunches. The newspaper articles exposed managerial and organizational failures, such as unsanitary conditions and unsafe food handling practices. Senator Durbin referenced these articles in his opening statement at the hearing as part of the evidence of a serious safety problem. Representative DeLauro did as well, concluding that if this was the case in the Chicago school system, then it was probably occurring nationwide.

⁷⁰Aisha Sultan, *This Time, Lunch Hour Goes Smoothly at City Schools*, St. Louis Post-Dispatch, March 20, 2004, at 15.

⁷¹Eric Schlosser, *Why You’re at Risk from Contaminated Food*, *USA Today*, June 28, 2001, at 15A.

⁷²In fact, Schlosser’s *Fast Food Nation* is credited with raising awareness of food safety dangers by explaining in gruesome detail how much faecal matter there is in hamburgers and how consolidation of the food industry has helped to spread disease. See discussion in, *Outflanking the Enemy*, *The Economist*, Dec. 13, 2003.

⁷³David Jackson, *School Lunches: Illness on Menu*, *Chicago Tribune*, Dec. 9, 2001, at 1; David Jackson and Geoff Dougherty, *Meat from Troubled Plants Sold to U.S. Lunch Program*, *Chicago Tribune*, Dec. 9, 2001; David Jackson, *Schools Flunk Food Safety*, *Chicago Tribune*, Dec. 10, 2001, at 1; David Jackson, *Vendors Reap Millions From Schools*, *Chicago Tribune*, Dec. 10, 2001, at 15; Lori Olszewski and David Jackson, *Duncan Vows Food Safety*, *Chicago Tribune*, Dec. 11, 2001, at 1.

While publicity influenced the joint hearing, the joint hearing in turn fueled publicity on the topic. The day after the April 30, 2002 hearing on school food safety, news services picked up the “story” that school outbreaks were an increasing problem, and newspapers across the nation printed headlines such as, “School Food Poisonings on Rise; Federal Inspection Agencies Faulted in Increase of Illnesses.”⁷⁴

IV. The 2002 Congressional Hearing: Problems and Proposals

Interest in and concern over food safety in the school meal programs, ignited in the latter half of the 1990s, intensified and came to a head in the early part of the 2000s with a joint hearing before the Senate Committee on Governmental Affairs and the House Committee on Governmental Reform in April 2002. The bicameral, bipartisan nature of the hearing was highlighted at its outset, and was seen to signal the importance placed on protecting the health and safety of the nation’s children, particularly in school lunchrooms.⁷⁵

The purpose of the hearing was to examine the adequacy and efficiency of federal oversight of the National School Lunch Program.⁷⁶ Witnesses presented testimony on behalf of the GAO, FDA, USDA, Center for Science in the Public Interest (“CSPI”), Safe Tables Our Priority (“S.T.O.P.”), National Food Processors Association (“NFPA”), and the American School Food Service Association (“ASFSA”). Over the course of the hearing, specific problems with the current regulatory system were highlighted, and certain solutions of varying scale were proposed and discussed. Two ideas—creating a single food safety agency and establishing

⁷⁴*School Food Poisonings on Rise*, The Houston Chronicle, May 1, 2002, at 7. *See also*, Andrew Mollison and Elizabeth Lee, *More Getting Sick from School Food*, The Atlanta Journal-Constitution, May 1, 2002, at 1A, and *School Food Poisonings Are On Rise, Study Finds*, St. Louis Post-Dispatch, May 1, 2002, at A6.

⁷⁵*Joint Hearing*, *supra* note 2 at 6 (testimony from Rep. Janice D. Schakowsky).

⁷⁶*Id.* at 5 (testimony from Rep. Stephen Horn).

mandatory recall power—involved major structural and regulatory overhauls, while other ideas focused on improving safety procedures at lower, local levels.

A. Single Food Safety Agency

The issue of food safety in the national school meal programs appears to be a vehicle for a larger, long-standing critique of the federal food safety regulation system, and a means of garnering support for the proposal to consolidate food safety responsibilities into a single federal agency. This suggestion has been the centerpiece of hearings on other food safety-related issues, notably the Senate hearing on food security following the attacks of 9/11 entitled, “Food Safety and Security: Can Our Fractured Food Safety System Rise to the Challenge?”⁷⁷ The single agency idea has, in fact, existed for more than 20 years since the Senate Committee on Governmental Affairs first identified it; Senator Durbin clearly made the link between the federal organizational issue and the school food issue with the comment, “When examining the increasing trend in foodborne illnesses in schools, I cannot help but revisit a problematic issue that has concerned me for many years.”⁷⁸ He went on to elaborate the problem of overlapping jurisdictions in the federal food safety system, where at least 12 federal agencies⁷⁹ implement more than 35 food safety statutes.

Durbin, who proposed a piece of legislation, S. 1501, known as the Safe Food Act of 2001, that would establish an independent agency called the Food Safety Administration with responsibility for all federal food safety activities, and his supporters in Congress are not alone.⁸⁰ The GAO also endorsed the single food agency

⁷⁷*Hearing, supra* note 11.

⁷⁸*Joint Hearing, supra* note 2, at 4 (testimony of Sen. Richard Durbin).

⁷⁹These agencies include: the USDA’s Agricultural Marketing Service, Animal and Plant Health Inspection Service, the Food Safety and Inspection Service, and the Grain Inspection, Packers and Stockyards Administration; the FDA’s Center for Food Safety and Applied Nutrition and Center for Veterinary Medicine; the Environmental Protection Agency; the Commerce Department’s National Marine Fisheries Service; and the Treasury Department’s Bureau of Alcohol, Tobacco and Firearms.

⁸⁰Representative Rosa DeLauro, who with Representative Janice Schakowsky introduced a companion bill in the House of

proposal,⁸¹ as did representatives from S.T.O.P. and CSPI.⁸² Other critics of the current food safety system, such as Eric Schlosser, have similarly urged the creation of a federal agency devoted solely to food safety. Schlosser sees inherently contradictory aims for USDA in representing both U.S. agricultural producers and U.S. consumers in the current system; he argues the FDA should focus on regulating prescription drugs, the USDA should promote agriculture, and a new agency should enforce safety.⁸³

The system of divided and overlapping responsibility is a problem, critics argue, because it is “duplicative, costly, and unduly complex.”⁸⁴ Because funding is spread over many agencies and coordination is limited, research is sometimes repeated, and the speed at which new food technologies can be widely implemented is reduced since each agency must give its individual approval. Furthermore, currently USDA receives the greatest share of federal inspection money, though FDA regulates the majority of foods that have resulted in outbreaks; one agency, it is argued, could allocate resources according to risk. Lack of accountability is another common critique.⁸⁵

The system has also been called “arbitrary,” in that some food, such as food monitored by the USDA, is inspected daily, while other food, such as food monitored by the FDA, is not. Specific to the school food safety issue, an outbreak associated with burritos that affected more than 1,200 schoolchildren in May 1998 was used at the hearing to call attention to the jurisdictional problem. Initially, it was suspected that the meat in the burritos was the cause, and USDA pursued the meat manufacturer; eventually, it was determined that the tortilla bread was the cause, and at that point FDA took over, since flour is an ingredient regulated

Representatives, reported that it had 43 bipartisan cosponsors. *Joint Hearing*, *supra* note 2.

⁸¹*Id.* at 15 (testimony of Lawrence J. Dyckman, Director, National Resources and Environment, U.S. General Accounting Office) (stating that he and his agency have said on several occasions that a single food safety agency is needed, as well as a reexamination of the legislative authorities of the present food safety agencies).

⁸²*Id.* (testimony from Sue Doneth and Caroline Smith DeWaal).

⁸³Schlosser, *supra* note 71.

⁸⁴*Joint Hearing*, *supra* note 2, at 4 (testimony of Sen. Richard Durbin).

⁸⁵*Hearing*, *supra* note 11, at 3.

by FDA. Durbin argued that if the same agency were looking at all the ingredients at the same time, it would be safer for schoolchildren.⁸⁶

In defense of the current structure, USDA offered some evidence of cooperation between USDA and FDA in the promotion of efficient safety regulation. In 1999, FSIS signed a memorandum of understanding with FDA that if FSIS is in a plant with dual jurisdiction—for example, producing pepperoni pizza (USDA jurisdiction) and cheese pizza (FDA jurisdiction)—it will be aware of and report potential problems with the cheese line, since FSIS inspects every day and FDA does not.⁸⁷ However, the limited nature of such coordination was challenged.

At the hearing, the only opposition to the single agency theory was from John Bode, counsel to NFPA, the primary trade organization representing the \$500 billion U.S. food processing industry on scientific and public policy issues. He argued that there are fundamental differences between the various agencies due to differences in the underlying statutes and that “simply merging the agencies will not change those differences in regulatory systems or even the cultures of the agencies.”⁸⁸ He predicted that such a merge would result in a “two-branch” food safety agency similar to the two separate primary agencies at present, and there would be no tangible benefits to the food safety system generally or for school food in particular. Moreover, he argued that significant losses in productivity of agency personnel often result when reorganization occurs. Bode’s position and motivations were questioned, however, as the GAO’s Lawrence Dyckman pointed out: “If the industry is begging not to do something, you have to look pretty leery at why they do not want to

⁸⁶*Joint Hearing, supra* note 2, at 21 (testimony of Sen. Richard Durbin).

⁸⁷*Id.* at 30 (testimony of Elsa Murano).

⁸⁸*Id.* at 40 (testimony of John Bode).

change. Is it because they feel that there will be more vigilant enforcement or more vigilant regulations?”⁸⁹

B. Mandatory Recall Power

Both USDA and FDA lack mandatory recall power of contaminated foods, instead relying on voluntary recall power. If a USDA-regulated company does not comply with a voluntary recall, USDA can detain the product for up to 20 days; FDA, however, must seek a court order to seize the food. Mandatory recall, it was argued, would speed up the current recall process, which is important since “delays in recalling unsafe food products can pose life-threatening situations to all consumers, and especially children.”⁹⁰ It was also argued that mandatory recall is especially relevant for international industry, where importers might be less compliant in conducting voluntary recalls.⁹¹

Again, the major objections to the proposal came from John Bode representing the food processors. He argued that mandatory recall could actually undermine the effectiveness of the current voluntary system because burdensome due process requirements would have to be met in court. Furthermore, food processors are already dedicated to effective recalls, have extensive experience with them, and initiate them on their own.⁹² A mandatory recall would not ensure that a higher recovery rate will be achieved, one of the critiques of voluntary recalls, because products are often already sold or perishable. Bode also highlighted the current avenues available if a voluntary recall is not made, such as detaining the product or seizing it by court order.

C. Transportation Oversight

⁸⁹*Id.* at 29 (testimony of Lawrence Dyckman).

⁹⁰*Id.* at 4 (testimony of Sen. Richard Durbin).

⁹¹*Id.* at 53 (testimony of Caroline Smith DeWaal).

⁹²*Id.* at 47 (testimony of John Bode).

Because of the increasing trend of heating school lunches in one school or a central kitchen and transporting them to various schools for distribution, shortcomings in transportation safety regulation were mentioned.⁹³ On the federal level, neither USDA nor FDA has a comprehensive regulatory program for transportation and storage of products they regulate—there are no uniform refrigeration or time requirements for food shipment, no oversight to prevent cross-contamination, and no comprehensive record-keeping of transportation conditions.

D. School-level Deficiencies

While major arguments were made for changes at the federal agency level, a host of suggestions also targeted problems at the local level, because, as noted earlier, a large percentage of school food illness outbreaks are traced to mishandling in the schools. Suggestions ranging from increasing training on proper food handling techniques, to strengthening local and state sanitation inspections, to introducing safety systems adopted by the fast food industry such as temperature monitoring, were proffered. ASFSA proposed reinstating a provision of the National School Lunch Act, repealed in 1981, that would have allowed Congress to contribute toward modernizing school cafeterias, as it was noted that kitchens are often the last facility to be modernized in schools.⁹⁴

One overarching critique took aim at the lack of information at the local level regarding multiple aspects of the school food program. For instance, school officials are often unaware of the food safety records of companies supplying food to their lunch programs since the data is kept by the federal food safety agencies and not readily available. Providing local districts with better information would be important so that

⁹³*Id.* (testimony of Caroline Smith DeWaal).

⁹⁴*Id.* at 45 (testimony of Mary Klatko).

they do not unknowingly contract with a company with a history of safety violations. Additionally, school officials generally know the identity of the food distributor who is the final link in the chain, but they may not know the manufacturer who supplied the food, so that when the USDA or FDA announces a warning about a harmful pathogen in a particular manufacturer's food, the schools don't know if they are in danger. Providing specific technical assistance to schools in terms of wording the safety regulations in their procurement contracts was also mentioned several times.

These school-level suggestions, particularly the information-access ones, are much less controversial than the federal-level proposals, and likely to be implemented. For instance, USDA agreed to revise their school procurement guidance to include an example addressing safety concerns; it did, however, also warn that local school districts may have less negotiating power to require safety provisions in their procurement contracts because their purchases are mainly low-volume from commercial sources.⁹⁵ To ease this concern, it was noted regional cooperative buying arrangements may be increasing.

X. A Controversial Measure: Food Irradiation

Food irradiation was not on the agenda at the joint hearing in 2002, and it appears to have intentionally been omitted from the list of promising or potential solutions to the problem of food safety in schools. The first and only serious mention of it at the hearing was by John Bode of the food processors association in a discussion on recall authority and *E. Coli*. Bode boldly transitioned to the subject with the statement: "*E. Coli* O157:H7 could have been completely controlled, had USDA specifications for the ground beef not

⁹⁵ *GAO 2002 Report*, *supra* note 12, at 11.

prohibited the use of irradiation.”⁹⁶ Noting that food irradiation is “widely misunderstood,” he argued that it was inappropriate for USDA to prohibit the use of any approved food safety technology in foods provided for school foodservice.⁹⁷

Indeed, food irradiation has been beset by “wide misunderstanding” and wariness. However, despite its perceived lack of support and lack of airtime in discussions of school food safety, the proposal to irradiate school food, surprisingly, made dramatic gains in 2003.

A. The Irradiation Process

To understand the controversy around food irradiation, it is helpful to understand what it is. Food irradiation is the process of exposing food to a carefully measured amount of ionizing radiant energy—electrons, gamma rays, or x-rays—which travels through food killing rapidly growing cells (such as those in foodborne pathogens) without raising the food’s temperature. Proper irradiation of foods would kill 99.9 percent of *Campylobacter jejuni* and *Listeria monocytogenes*, as well as *E. coli* O157:H7 and *Salmonella*—foodborne pathogens that are associated with meat and poultry.⁹⁸ FDA has primary regulatory responsibility for ensuring the safe use of irradiation on all foods,⁹⁹ though USDA’s FSIS is responsible for overseeing the processing of meat, poultry, and some egg products, including its irradiation.¹⁰⁰

⁹⁶ *Joint Hearing*, *supra* note 2, at 47 (testimony of John Bode).

⁹⁷ *Id.* at 118 (testimony of John Bode).

⁹⁸ *GAO 2003 Report*, *supra* note 45, at 20.

⁹⁹ FDA’s authority comes from the Food Additives Amendment of 1958, which specifically defines radiation to be a food additive and gives the FDA responsibility for ensuring the safety of food additives.

¹⁰⁰ Other federal agencies that have regulatory responsibilities related to food irradiation include the Nuclear Regulatory Commission, the Occupational Safety and Health Administration, and the Department of Transportation.

The safety and health risks posed by food irradiation have been the subject of extensive scientific studies by public and private researchers over the past 50 years. The consensus emerging from these investigations is that food irradiation is a safe, effective tool for reducing foodborne pathogens with minimal risks.¹⁰¹ An expert committee of the World Health Organization (“WHO”) reviewed the findings of more than 500 studies and found that irradiation creates no toxicological, microbiological, or nutritional problems; irradiated foods maintain the look, smell, taste, and nutritional value associated with traditionally processed foods.¹⁰² The studies showed that benefits of the process include reducing foodborne pathogens, extending the shelf life of some fruits and vegetables, and controlling insect pests, thus reducing the need for harmful pesticides.¹⁰³

Significantly, FDA and USDA have approved the use of irradiation on uncooked meat and poultry and fresh shell eggs, as well as foods such as spices, fresh fruit, and vegetables.¹⁰⁴ Forty countries, including the U.S., permit food irradiation. The GAO has also endorsed food irradiation after a thorough analysis of available research,¹⁰⁵ as have scientific organizations including the American Dietetic Association, the American Medical Association, CDC, WHO, and the Food and Agriculture Organization. Trade groups such as NFPA have not only endorsed, but fought for it.

Some entities, however, including Public Citizen and Food and Water, Inc., oppose food irradiation because they believe more long-term research on irradiation’s health effects is necessary; moreover, they are especially opposed to serving irradiated foods to vulnerable populations such as children without more study. Major U.S. consumer food groups, including CSPI, the Consumer Federation of American, and S.T.O.P. cautiously

¹⁰¹U.S. General Accounting Office, *Food Irradiation: Available Research Indicates That Benefits Outweigh Risks*, GAO/RCED-00-217 (Washington, D.C.: August 2000) at 13 [hereinafter *GAO 2000 Report—Irradiation*].

¹⁰²*Id.* at 5.

¹⁰³*Id.*

¹⁰⁴FDA first approved irradiation for use on a food product (wheat and wheat flour) in 1963, and final approval for the irradiation of meat took effect in February 2000, with various food additive regulations sanctioning food irradiation being published in the interim. Both the FDA and USDA require that irradiated foods bear the international food irradiation symbol, the radura, on their labels and the statement that the products have been intentionally subject to radiation. *Id.*

¹⁰⁵*Id.*

support or are neutral toward the limited use of irradiation, many voicing reservations in regards to children.

Concerns focus on the safety of these foods, particularly toxicity and reduced nutritional quality, and the impact of the process on worker safety and the environment. Opponents allege that FDA approval of meat irradiation was based on flawed studies done in the 1970's, 1960's, and 1950's, and that the government's approval of irradiated meat "was based on politics, not science."¹⁰⁶ Furthermore, they argue that irradiation would be unnecessary under more stringent sanitation guidelines—emphasis should be placed there instead of on promoting a questionable procedure. It should be noted, however, that even proponents of food irradiation such as the GAO and USDA caution that irradiation is not a replacement for inspection methods or safe food handling and preparation practices, but rather a supplementary protection.¹⁰⁷

Because of the concerns articulated above, consumers' willingness to purchase irradiated foods have limited their availability in the U.S., though the volume has been increasing over the past five years.¹⁰⁸ Health care and food service establishments have been the primary consumers, purchasing the products because of their food safety benefits.

B.

Irradiation and School Food

In 2000, when USDA dictated its zero-tolerance policy for *Salmonella* in ground beef used in the school

¹⁰⁶John LaFarge, *Food Irradiation Deregulated by Farm Bill*, Nukewatch, Spring 2002, accessed at <http://www.nukewatch.com/pathfinder/spring02/sp026.html>.

¹⁰⁷GAO 2003 Report, *supra* note 45.

¹⁰⁸Industry estimates in 2003 state that irradiated meat accounts for less than 5 percent of overall meat sales. Michael Fletcher, *Ban on Irradiated Ground Beef Lifted in School Lunch Program*, The Washington Post, May 30, 2003, at A11.

lunch program, it also announced that meat products could not be treated by irradiation. This prompted an outcry from industry groups such as NFPA, who argued that the new policy created “an untenable, unachievable, and scientifically flawed zero tolerance standard, and banned the use of the one tool that can virtually guarantee the absence of salmonella in raw ground beef—irradiation.”¹⁰⁹ At the local level, federal regulations did not prohibit schools from serving irradiated foods should they choose to purchase them, though ASFSA and FNS reported that no schools were known to have done so as of May 2003.¹¹⁰

In the Spring of 2001, AMS issued revised specifications for commodity contracts for the National School Lunch Program that would permit the purchase of irradiated food. A public outcry prompted the Secretary of Agriculture to rescind the revised contract specifications.

Although the USDA could not, through administrative action, include irradiated food in the school lunch program, the possibility was accomplished through legislative action in May 2002 when the Farm Security and Rural Investment Act of 2002 (known as the Farm Bill) was adopted. During the final hours of the Senate’s consideration of the Act, Senator Tom Harkin presented a 396-page amendment to the bill. Most of the amendment dealt with research products, but two sections impacted the future of irradiated food in the U.S. Section 442 directs the Agriculture Secretary to allow any food safety technology approved by USDA or the Department of Health and Human Services, including irradiation, to be used for commodity purchase programs, including the federal school meal programs. Section 1079E redefines “pasteurization” to include any food safety technology that has been approved by the Secretary of Health and Human Services that can

¹⁰⁹ *Joint Hearing*, *supra* note 2, at 188 (testimony of John Bode).

¹¹⁰ *GAO 2003 Report*, *supra* note 45, at 21.

eliminate foodborne pathogens. The intent of that provision was to allow use of the term pasteurization for meat and poultry products treated by technologies such as irradiation.¹¹¹ Irradiated foods could be labeled with the new description “electronically pasteurized” or “cold pasteurized,” which is a familiar word that sounds less alarming to the public than the word irradiation, which conjures up radioactivity.¹¹²

In November 2002, USDA requested public comments on implementing this provision. The majority of the comments opposed the use of irradiation in school lunches.¹¹³ The GAO also weighed in on the topic, supporting irradiation but recommending further study of the advantages and disadvantages, including costs, of USDA donating only precooked or irradiated meat and poultry products to schools.¹¹⁴ The principal concern was that precooking or irradiation would decrease the amount of commodities donated since funds would shift toward paying for processing rather than acquiring more raw products; furthermore, USDA would be less effective in removing surplus commodities from the marketplace, one of school meal program’s goals.

Despite the negative public comments, on May 29, 2003, USDA announced that it would include irradiated ground beef in its federal nutrition programs as of January 2004, offering the products to participating local school districts and allowing them to decide if they want to serve them. While the USDA encourages schools serving irradiated ground beef to label it and notify parents, it does not require such steps. FNS provided a grant to the Minnesota Department of Children, Families & Learning for development of an educational

¹¹¹ *Farm Security and Rural Investment Act of 2002*, Conference Report to Accompany H.R. 2646, May 1, 2002, at 681.

¹¹² Marian Burros, *Irradiated Beef: A Question in Lunchrooms*, The New York Times, Jan 29., 2003, at F3.

¹¹³ According to the Center for Food Safety, a nonprofit advocacy group which opposes food irradiation, more than 1,500 comments were made to USDA with two-thirds against irradiation. *Id.*

¹¹⁴ *GAO 2003 Report, supra* note 45, at 26. This report was in preparation for the reauthorization of the Richard B. Russell National School Lunch Act, to determine the frequency and causes of reported foodborne illness outbreaks associated with the federal school meal programs, and identify practices for safeguarding meals. The report centered on four suggestions: 1) employing key food service personnel trained and certified in food safety practices 2) implementing risk-based approaches for safely preparing, storing, and serving foods 3) purchasing precooked or irradiated meat and poultry 4) applying the more stringent USDA purchasing specifications.

pilot that would include materials for school staff and parents regarding food safety and the use of irradiated foods as one option to ensure a safe food supply.

C. Concerns Over Irradiation in the School Lunch Program

Interestingly, the same arguments that were used to support increased protection in the school food safety system generally were used to oppose adoption of the new irradiation technology. For instance, opponents highlighted children's special physical vulnerability—"children are more susceptible to toxic substances in their environment because they eat, drink and breathe three times as much as adults, pound for pound"¹¹⁵—in challenging the potential toxic effects of the process and the lack of studies focusing on the effects in children. Concerns over parents' right to know and be confident in what their children are eating, and the impact on poor children were also echoed again in this context: "This proposal is especially worrisome because irradiated food served by schools does not have to be labeled, and low-income children will be disproportionately affected."¹¹⁶

With the USDA buying approximately 132 million pounds of ground beef for the school lunch program per year, critics such as Public Citizen observed that USDA could become the largest distributor of irradiated food in the world.¹¹⁷ Allegations were also levied that pressure from the food irradiation industry, which has had little commercial success, motivated the policy.

¹¹⁵Monique Mikhail, *Irradiated Meat—A Sneak Attack on School Lunches*, The Weston A. Price Foundation, accessed at <http://www.westonprice.org/modernfood/irradiatedmeat.html>.

¹¹⁶LaFarge, *supra* note 106.

¹¹⁷Michael Fletcher, *Ban on Irradiated Ground Beef Lifted in School Lunch Program*, The Washington Post, May 30, 2003, at A11.

D. Irradiation's Failure

Caroline Smith DeWaal of CSPI articulated another concern over the use of irradiation in school lunches: “there is not enough public acceptance.”¹¹⁸ This may be an obvious concern, but it cuts to the root of the reason why irradiation has been, overall, a failing safety proposition in the school lunch context. Vocal opposition by the groups above, combined with increased costs, and the belief of many local school foodservice officials that their own food safety practices make irradiation unnecessary, have suppressed support for the measure, essentially making irradiation a moot issue.

The way the measure is implemented, local schools must choose whether to receive irradiated food products or not, thereby dispersing decision-making authority across the many school systems across the country. In evaluating their options, some school officials said they were not convinced of the safety of the irradiation process, but most rejected the irradiated products because of cost, as irradiated beef is estimated to cost 13 to 20 cents more per pound, with some estimates putting it as high as 75 cents more per pound.

School officials also commented that food preparers already take necessary precautions to ensure food safety, so there is no need to increase costs with the additional process; as one Nebraska nutrition services director commented, “For a restaurant, with a lot of untrained staff, it does have a place. But in a school, it’s like dipping children in alcohol before they go to class. It’s just not necessary.”¹¹⁹ Cast a different way, the pride foodservice operators have in their food safety programs turned out to be an obstacle for irradiation.¹²⁰ In

¹¹⁸Burros, *supra* note 112.

¹¹⁹Michaela Saunders, *Hold the Radiation, Schools Say: Irradiated Meat is Too Expensive, Nebraska and Iowa Districts Say*, Omaha World-Herald, Feb. 20, 2004, 1A.

¹²⁰Paul King, *Congressional Bill to Restrict USDA’s Marketing of Irradiated Foods to Schools*, Nation’s Restaurant News, July 12, 2004.

the school systems that acknowledged problems in their food service operations, such as Washington, D.C., opposition was still present because the officials felt the money irradiated meat would cost could be better spent on bringing fresher and healthier ingredients and ensuring more sanitary kitchens.¹²¹

A number of states and schools have taken concrete measures to exclude irradiated food from school lunches. As of September 2004, ten school districts, including Los Angeles and Washington D.C., had outright banned irradiated food. In the District of Columbia, where 60 percent of the more than 65,000 students in the public school system qualify for subsidized lunch, the Board of Education voted last May to forbid all schools from purchasing irradiated food for any of its meal programs for five years.¹²²

At the start of the 2004-2005 school year, only Minnesota, Texas, and Nebraska had ordered small quantities of irradiated ground beef for schools in their states. In Nebraska, for instance, a handful of schools ordered 20,000 pounds of irradiated ground beef, comprising only about two percent of the approximately 1.1 million pounds of ground beef ordered for schools in that state each year.¹²³ However, ultimately, all three states withdrew their orders for irradiated ground beef, citing the product's high cost and the inadequate information provided by the federal government. When not a single schoolchild is being served an irradiated lunch product, it is hard to think of the irradiation measure as anything other than a failure.

XI. Conclusion

On June 30, 2004, President Bush signed into law the Child Nutrition and WIC Reauthorization Act of

¹²¹*Irradiated Food Barred from DC School Lunches*, Environment News Service, May 21, 2004.

¹²²*Id.*

¹²³Emily Gersema, *Irradiated Beef Being Served to State Kids*, Omaha World-Herald, Aug. 24, 2004, at 1A.

2004.¹²⁴ The purpose of the Act was to amend the Richard B. Russell National School Lunch Act and the Child Nutrition Act of 1966 to provide children with increased access to food and nutrition assistance, and to simplify program operations and improve program management.¹²⁵ Two amendments to the National School Lunch Act are relevant to the issues of this paper, namely, the general goal of increasing food safety in the school meal programs, and the specific policy of using irradiated food products.

In light of the rejection on irradiated school food at the state, local, and individual citizen levels, Section 118 further restricts the use of irradiated food in school lunches at the federal level.¹²⁶ Specifically, it states that irradiated food cannot be mandated by the USDA and may only be made available to schoolchildren at the request of state and local school systems; the prior version of the National School Lunch Act had no provisions relating to irradiated food, though, as discussed, USDA's policy was to *offer* such foods to schools. Additionally, the amendment states that reimbursements to schools for irradiated foods must be the same as reimbursements for non-irradiated foods (meaning irradiated food cannot be specially subsidized by the federal government), and that USDA must provide state and school food authorities with factual information about irradiation, including notice that irradiation is not a substitute for safe food handling, as well as model procedures for providing this information to students and parents. Other provisions require that irradiated food products provided by the Secretary are appropriately labeled; irradiated food products are not commingled with other foods; and schools that offer irradiated food products are encouraged to offer alternatives.

Under the broad title "Food Safety," Section 111 amends Section 9(h) of the National School Lunch Act,

¹²⁴*Child Nutrition and WIC Reauthorization Act of 2004*, Pub. L. No. 108-265, 118 Stat. 729.

¹²⁵*Id.* (opening paragraph).

¹²⁶Section 118 is entitled, "Notice of irradiated food products."

increasing the number of required food safety inspections from once to at least twice a year and requiring that reports on the most recent inspection be publicly posted and provided to the public. The section explicitly allows state and local governments to require more frequent inspections. Through fiscal year 2009, it also requires states to annually audit required school food safety inspections and submit the results to the Secretary, who must audit these state reports. This section further adds a requirement that school food authorities implement a school food safety program for the preparation and service of meals that complies with any “hazard analysis and critical control point” system established by the Secretary. The law requires compliance with the HACCP system by July 1, 2005 and USDA is expected to make HACCP guidance available this spring.¹²⁷

Activist groups like Public Citizen applauded the irradiated food products amendment, though, in reality, the issue appears to be a non-issue since no schools are currently serving or have plans to serve irradiated food. Given the particular susceptibility of schoolchildren to foodborne pathogens, and the scientific consensus that food irradiation is a safe, effective tool for reducing such pathogens, what accounts for the near-total failure of the irradiation solution in the school lunch area? It appears that food irradiation is just too radical an idea for the American public; without public acceptance of irradiation in the general food supply, it was foolish to try to gain a first foothold in the school lunch supply, particularly when it entailed increased costs. Advocates of meat irradiation have criticized the industry’s promotion techniques, comparing its present mistakes with those made by the biotechnology industry, both “trying to force their new technology down the throats of consumers who have a lot of questions.”¹²⁸ Consumer wariness of irradiated beef has also

¹²⁷Congressional Research Service, *The Child Nutrition and WIC Reauthorization Act of 2004 Public Law 108-265: Section-by-Section Description*, accessed at <http://www.frac.org/pdf/CNR2004Section.pdf>. See also, USDA, *School Food Safety Inspections—Reauthorization 2004: Implementation Memo—SP 10*, Dec. 16, 2004, and USDA, *Hazard Analysis and Critical Control Point (HACCP) in Schools—Reauthorization 2004: Implementation Memo—SP 11*, Jan. 10, 2005, both accessed at <http://www.fns.usda.gov/cnd/Governance/policy/Reauthorization.04/Reauthorization.2004.htm>.

¹²⁸Burros, *supra* note 112.

been compared to the reaction when milk pasteurization was first developed. Today, pasteurized milk is a staple of the nation's food supply—and certainly a main component of the school meal programs—so perhaps irradiation just needs more time.

The safety improvements embodied in Section 111 represent a more prudent course of action. Proposals aimed at the “highest” level—specifically, restructuring the federal food agencies into a single agency—may have merit and provide residual benefit to the National School Lunch Program, but have not proven to be effective solutions. Durbin's 2001 single food agency bill and his later bill, the “Safe School Food Act of 2003,”¹²⁹ which called for “sweeping”¹³⁰ changes including mandatory recall power and more stringent pathogen testing for both federally and locally-procured foods, sat until the legislative clocks ran out. In contrast, by focusing on the “lowest” level—the school kitchens and cafeterias themselves—and requiring increased safety inspections and HACCP safety control systems, the Section 111 provisions will likely have a more efficient, immediate, and widespread impact on the underlying concerns—long-standing concerns over wholesomeness and safety tracing back to the program's earliest days.

¹²⁹ *Safe School Food Act of 2003*, S.506. Its companion bill in the House of Representatives was H.R. 1551.

¹³⁰ *While School Lunch Safety Concerns Resurface in Senate*, Food Service Director, April 15, 2003.